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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/147,320	02/02/1999	MATS LEIJON	9847-0004-6X	1544
22850	7590	03/09/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			NGUYEN, CHAU N	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/147,320

**Applicant(s)**

LEIJON ET AL.

**Examiner**

Chau N. Nguyen

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 19-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/26/02</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claims 19, 36 and 37 are objected to because of the following informalities:  
  
in claim 19, line 6, before "said" insert --and--,  
  
in claim 36, line 6, before "said" insert --and--,  
  
in claim 37, line 6, before "said" insert --and--. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 19, 22-25, 28, 30-33 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carini et al. (3,876,462) in view of Takaoka et al. (4,571,453) and Hvizd, Jr. et al. (4,361,723).

Carini et al. discloses a high-voltage cable comprising a plurality of strands (col. 3, lines 23-24), an inner conductive layer (2) that surrounds and contacts the strands, an insulating layer (3) which is PP (col. 3, line 13) (re claim 35) that surrounds and contacts the inner conductive layer, and an outermost conductive layer (4) that surrounds the insulating layer, wherein the outermost conductive layer comprises a polymer and carbon black (claims 19, 36, 37).

Carini et al. does not disclose at least one uninsulated strand and a plurality of strands each being insulated from one another nor outermost layer having a resistivity of 10 to 500 ohm\*cm (claims 19, 36, 37, 38) or of 50 to 100 ohm\*cm (claim 22).

Takaoka et al. discloses a conductor for an electrical cable, comprising at least one uninsulated strand (8<sub>1</sub>, 9<sub>1</sub>) and a plurality of strands (8<sub>2</sub>, 9<sub>2</sub>) each being insulated from one another. It would have been obvious to one skilled in the art to use the conductor as taught by Takaoka et al. for the conductor (10) of Carini et al. since the conductor taught by Takaoka et al. has good characteristics in the coefficient of the skin effect.

Hvizd, Jr. et al. discloses an invention related to an insulated high-voltage cables. Hvizd, Jr. et al. discloses that it is well-known in the high voltage cable art that semi conductive material having sensitivities in the range of 1 to 1,000,000 ohm\*cm (col. 2, line 65-67). It would have been obvious that depending on the specific use of the resulting wire, one skilled in the art would

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choose a suitable resistivity for the outermost layer of Carini et al. to meet the specific requirement since a resistivity having ranges of 10 through 500 ohm\*cm or 50 through 100 ohm\*cm are well-known in the cable art for semiconductive material as taught by Hvizd, Jr. et al. Noted that the resistances as recited in claims 23-25 are inherent from the modified outermost layer of Carini et al. since the modified Carini et al. outermost layer has the resistivity as claimed in claim 19. Re claim 28, Carini et al. discloses the insulating layer being crosslinked by peroxide but not the outermost layer. However, it would have been obvious to one skilled in the art to use peroxide to crosslink the outermost layer as Carini et al. uses to crosslink the insulating layer since peroxide is known material for being used for crosslinking polymer. Re claims 30 and 33, Carini et al. discloses the insulating layer being configured to adhere to the outermost conductive layer with a predetermined adhesion strength and being a XLPE. Re claims 31 and 32, it has been held that during the examination, the patentability of a product claim is determined by the novelty and nonobviousness of the claimed product itself without consideration of the process for making it which is recited in the claim. In re Thorpe, 227 USPQ 964.

5. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carini et al. in view of Takaoka et al. and Hvizd, Jr. et al. as applied to claims above, and further in view of Elton et al. (5,066,881).

Claim 20 additionally recites the outermost conductive layer being grounded at at least two different points. Elton et al. discloses an insulated wire (fig. 7) wherein the outer conductive layer (110) is grounded (at 112). It would have been obvious to one skilled in the art to ground

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the outermost conductive layer of the Carini et al. wire as taught by Elton et al. to establish and maintain the potential of the conductive layer. It would have been obvious to one skilled in the art to provide another grounding point on the outermost conductive layer of the Carini et al. wire to improve the grounding effect of the outer layer because it has been held that duplicating an essential working part of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8 (re claim 21).

6. Claims 26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carini et al. in view of Takaoka et al. and Hvizd, Jr. et al. as applied to claims above, and further in view of Silver et al.

Claim 26 additionally recites the resistivity of the outermost conductive layer being set by a type of the base polymer, a type of the carbon black and a proportion of the carbon black relative to an entire formulation of the outer conductive layer. Silver et al. discloses an insulated wire comprising a conductive layer (3 or 4) being made of a base polymer and a carbon black. Silver et al. discloses the resistivity of the layer being set by a type of the base polymer (col. 4, lines 35-36), a type of the carbon black and a proportion of the carbon black relative to an entire formulation of the layer (col. 1, lines 20-37). It would have been obvious to one skilled in the art to choose suitable types of polymer and carbon black and use an appropriate amount of the carbon black as taught by Silver et al. to meet the specific required resistivity of the Carini et al. outermost layer. Re claim 29, Carini et al. discloses the insulating layer being crosslinked by peroxide but not the outermost layer. However, it would have been obvious to one skilled in the

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art to use peroxide to crosslink the outermost layer as Carini et al. uses to crosslink the insulating layer since peroxide is known material for being used for crosslinking polymer.

7. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carini et al. in view of Takaoka et al., Hvizd, Jr. et al. and Silver et al. as applied to claim 26 above, and further in view of Robert et al. (5,530,206).

Claim 27 additionally recites the base polymer comprising an ethylene butyl acrylate copolymer. Robert et al. discloses a cable comprising a semiconductive layer having a base polymer being comprised of an ethylene butyl acrylate (col. 3, lines 42-47). It would have been obvious to one skilled in the art to use ethylene butyl acrylate as the base polymer for the outermost layer of the modified Carini et al. wire since ethylene butyl acrylate is a well-known (conventional) polymer being used in semiconductive materials as taught by Robert et al.

8. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carini et al. in view of Takaoka et al. and Hvizd, Jr. et al. as applied to claim 19 above, and further in view of Breitenbach et al.

Claim 34 additionally recites the insulating layer being made of EPR. Breitenbach et al. discloses a cable comprising an insulating layer (8) being made of EPR. It would have been obvious to one skilled in the art to use EPR for the insulating layer of the modified Carini et al. cable since EPR is an insulating material suitable for being used in high voltage applications as taught by Breitenbach et al.

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***Response to Arguments***

9. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

***Communication***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chau N Nguyen  
Primary Examiner  
Art Unit 2831